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War Psychiatry in the Merchant Navy

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NOT so long ago the Merchant Marine, normally a civilian business concern, became the primary objective of the enemy's exertions at sea. So considerable were the resulting casualties in ships that the highest priority was given to their defence and repair. With an unfortunate disregard for skilled man-power the same energy was not shown in repairing the psychological effects of sea warfare amongst officers or men. The study, over fourteen months, of 334 such casualties, of whom 139 were officers and 195 were men, has proved valuable in furthering our knowledge of the traumatic battle casualty and modifying the lessons we hope to carry into the peace.

ÆTIOLOGY

(*a*) *Precipitating factors.*

Precipitation of illness often occurred in violent and dramatic circumstances. A consistent severity of trauma was found which it would be unwise to belittle as merely dramatic since, in a majority of patients, it certainly moulded the subsequent reaction. While in respect of a few cases we agree with Blain (1943) in the significance of personal events before, during and after the "battle" episode, in precipitating nervous illness, we found such events generally to be of secondary or minor importance. Over three-quarters of the patients had suffered explosions at sea by torpedoes, mines, bombs or shell-fire, often two or three times, and dated their symptoms from one of these events. Immersion, followed by exposure and semi-starvation in life-boat or raft, and maybe capture by the enemy frequently succeeded the initial explosion. After disablement or destruction of their ship the Merchant Navy have nothing which corresponds to the help of Army Field Ambulance, and only rarely can Air Sea Rescue or Naval Medical Services assist them. It is scarcely surprising that wounded figure little in the Merchant Navy casualty returns. On April 4, 1944, for four years of war there were 30,000 casualties, made up of 26,000 killed (i.e. 1 out of every 8) and 4,000 internees. The number is twice that for the four years of the last war. Other precipitating incidents were collisions, the sight of nearby ships exploding or sinking, the loss of a special friend or the by no means unfounded fear of being trapped when the ship was hit. In fact, in only 3·9% were definite traumatic incidents absent.

(*b*) *Predisposing factors.*

In considering personal qualities and events which predispose to breakdown we found a group which collectively was significant.

(1) *The incidence of previous psychiatric illness* 5·5%, agrees with Bellamy (1943) who finds it no higher than in ordinary surgical casualties. By contrast, Craigie (1944) at an Army Psychiatric Centre in the Middle East, reports an incidence of 21·7%.

(2) *The average length of service* for all patients was 10·8 years and the dilution of regular Merchant Navy personnel by those joining for war services only was less than one-third, in the period covered by this paper. Many of these men, therefore, had experience in plenty so far as the essentials of their occupation were concerned.

(3) According to Tooth (1944) in the Royal Navy *domestic stress* was responsible for more invaliding (35·6%), than either enemy action (29%), or conditions of service (22·6%). Domestic stress was a significant factor in causation in 16% of our series, and only 9% of all patients were invalided for this reason. Occasionally, the domestic situation determined a man's return to sea rather than otherwise.

(4) *Group moral.* Their *compliance* with the *conditions* of *service* at sea, well known to be hard and lacking the amenities of the Forces, contrasted strongly with their lack of toleration of authority in their conduct on shore. Even in peacetime the Merchant Navy was scarcely to be ranked amongst the safer occupations, and its conditions were such that only recently has the practice of offering a choice between prison and the

Merchant Navy ceased in the courts. Not until May 1, 1944, could a man take annual leave without loss of pay, since pay formerly continued only when "operational". In peacetime Shipping Companies endeavoured to promote successful integration of crews by keeping them together for several trips, since a single voyage may be nearly over before the crew begin to settle as a unit. Under the present pool system it is not uncommon for a man to change ships at the end of each trip, especially if leave is taken, yet there was little resentment at this change. How different is all this from the group sense cultivated in the warship, the regiment and the R.A.F.

(5) *Without previous training for war* the merchant seaman has to ply his vital business across an enemy-infested sea, and to face aggression under conditions of relative personal and collective inactivity, with meagre chance of retaliation, in civilian craft which till the later stages of the war could only be afforded modest escort.

(6) *Sexual abnormalities,* generally speaking, were conspicuous by their absence; sexual inadequacy occurred in 6·5%, but no sexual perversions were recorded. Their inadequate emotional attitude may have made the patients more fitted for sea life but went against them when faced again with the home situation. Half our series were married. In the Army the majority are married.

(7) The above considerations are all associated with our conclusions concerning the personality of the Merchant seaman. The Merchant Navy is recruited on a voluntary basis and it is axiomatic that to some extent the job selects the man. A diversity in quality of officers and men is apparent—a not unexpected corollary of the varied motives, at least superficially, for going to sea. Inquiry into the reason for the choice of a seafaring life showed that while a quarter selected the sea as their form of war service for the duration many, on casual inquiry, said they chose it for adventure, to see the world, because they fancied it, or because of family tradition. More careful questioning made it clear that a great majority chose it as an escape for their restless, emotionally shallow personalities, personalities which were always living in the near future and seeking out the next move, a restlessness besides which their hard service conditions seemed to them of lesser account. As a group they were intolerant of control, individualistic, lacking group sense and making few friends except possibly for one special pal, on whom they became over-dependent. At sea they may long for the home port, but once there they show little tendency to stay, soon signing on for another ship. Their superficial adjustment to sex assists them to tolerate long periods afloat. Thus, one way and another, the Merchant marine provides an adjustment for this type of personality. Hence the long average service, 10·8 years, low incidence of previous psychiatric illness, low incidence of invaliding for domestic stress, compliance with adverse conditions of work, good or satisfactory work record in all but 10%.

While this type of personality adjusts fairly well in peacetime, it is susceptible to breakdown under the severe anxiety and fear provided by the traumatic experiences of sea warfare; but breakdown means return to the very environment in which previously they had failed to adjust, and from which escape had been sought at sea. Consequently, we find much delay in reporting sick and tendency to return to sea "to cure themselves".

If unable to return to sea, they displayed feelings of inferiority, of suspicion, a sense of grievance for supposed ill-treatment and in general a tendency to an irritable paranoid state. In hospital as soon as symptomatic relief had occurred, there was a liability to take their own discharge or to misconduct themselves with a view to getting it. 6·7% left the hospital in this way and in American reports (Bellamy, 1943) 22%. At home, where many were unfortunately sent for long periods, their unsettled conduct and irritability produced constantly recurring histories of domestic discord, in which the patient was frequently aware of his unworthy share. While their early hospital treatment was no special problem, their subsequent rehabilitation was distinctly difficult.

By ordinary psychiatric criteria, 46·5% of the whole series showed personalities which, prior to their illness, could be adjudged mildly or grossly abnormal, mainly the former. The duration of service in the abnormal personality group averaged 7·3 years as opposed to 11·1 years in those personalities considered normal. Anxious and depressive states predominated in those having a normal personality (93·6%), rather than in the abnormal where the incidence dropped to 70%. So far as duration of war service only was concerned, there was little difference between the normal and abnormal personality groups, being 2·86 years in the former and 2·76 years of war in the latter. Evidently, numerous abnormal personalities stood the difficulties of their occupation very well and many suffered multiple traumatic incidents, though occasionally a single torpedoing with or without much attendant personal hardship terminated all attempts to adjust at sea, and perhaps provided the avenue of escape from it. It is fairly certain that abnormal personality traits, which might lead to rejection from the fighting Services

and in some of our cases had done so, are not incompatible with many years at sea in the Merchant Navy in war or peace. With the type of man who volunteers for sea under present conditions screening out the abnormal personalities by psychiatric examination is likely to be relatively ineffective unless these special considerations are taken into account.

(8) Lack of group sense and the scheme of organization of the Merchant Marine share responsibility for the situation that often arises between captains and crews. The captain legally represents the ship's company, not the interests of the men, who naturally tend to rely on their Union in such matters. In their relations with the captain too often the crew are wondering what his motives are, rather than considering it possible for him to do them a disinterested service. This relationship of employer and employed still colours the men's attitude in war, so that attempts at better discipline are viewed as an unnecessary brake on their roving propensities or as entailing loss of rights instead of a means of improving their own efficiency.

(9) Amongst other potent factors in predisposition must be considered the *anticipation of danger.* Occasionally it is sufficiently acute to be a predisposing influence, especially amongst engineers, radio officers and those on duty in closed compartments on or below deck. The engineer may regard his engine room as a coffin but the deck as a place of comparative security. The naval practice of relaying information from time to time to various parts of the ship during enemy action is of value in easing psychological tension. Knowledge of a difficult situation can usually be tolerated better than ignorance, leaving a fearful imagination full play. There is no doubt that the prolonged tension experienced by rather more than half of all cases undermined their ability to adjust to the excessive fear response that assailed them in real emergency.

(10) *Occupation.*—Investigation into the way the various occupations on ship affected the incidence of breakdown, indicated in the officer group, that radio officers in proportion to their numerical strength on ship had the most psychiatric casualties. In war theirs is an unsatisfactory lot, owing to the radio silence observed at sea. They have little to do and sometimes help out the other officers in minor ways. They mostly work under enclosed conditions, and by comparison they are the least skilled of the officer group. The executive officers on deck showed the lowest incidence (22·8%).

In other ranks stewards ranked highest with an incidence of breakdown of 16·8%, cooks, able seamen and firemen followed in decreasing order of incidence.

Generally speaking those on deck showed a lower incidence than those working below or in closed spaces.

(11) *Antecedent illness.*—The most prevalent illnesses considered to have lowered the patients' resistance to nervous breakdown were malaria 9·3%, fevers of the enteric group 2·2% and peptic ulcer 2%.

As regards other factors: All but 14% attained top standard at school. Psychiatric abnormalities appeared in the near relatives of 20% of cases.

In *summarizing our conclusions* concerning ætiology we believe that the excessive preponderance of anxiety and depression especially the former to have been the result of the considerable trauma experienced or the mere association with dangerous environments.

This trauma, or the anticipation of it, had changed for these men the character of an environment which had thus far served as a refuge from a maladjusted life on land.

They were faced, not only with the development of war neurosis, but placed in the quandary of having to revert to the scenes of former failure. They had failed both at sea and ashore, hence the persistent anxiety, hostile attitude towards authorities, unsettled behaviour in hospital and at home, and the difficulty of rehabilitation afterwards. It is highly probable that some of these men will return to sea as soon as the war is over.

DIAGNOSIS

Anxiety states	227	67·9%
Depressions	37	11·1%
Hysterias	27	8·0%
Psychopathic states	14	4·2%
Schizophrenias	9	2·9%
Post-traumatic—Anxiety	5	1·4%
—Depression	2	0·6%
Neurasthenia and exhaustion	4	1·2%
Obsessional neurosis	1	0·3%
Epilepsy	2	0·6%
Post encephalitis	2	0·6%
Senile dementia	1	0·3%
Malingering	1	0·3%
G.P.I.	1	0·3%
Myasthenia gravis	1	0·3%
	334	100

Symptomatology

The bias in symptoms already mentioned shows itself in the following diagnostic groupings. States of anxiety 67·9% and depression 11·1% tended to occur together. To decide which should have the primary diagnostic label was sometimes difficult. States of hysteria 8% and psychopathic behaviour 4·2% were frequently complicated by anxious and depressive trends. The unusual preponderance of anxiety and depression made symptoms somewhat standardized. Psychological and somatic manifestations of fear were most evident in the form of sleeplessness, nightmares, irritability sometimes followed by sensations of guilt or remorse, restlessness, feelings of weakness, lassitude, and of "tension in the head". More purely somatic symptoms such as headache, various aches and pains, diarrhœa, frequency of micturition, tremors, gastric discomfort, nausea or vomiting, dizziness, palpitations, liability to be startled unduly by sudden noises and a lowered tolerance to alcohol were also observed.

In more recent cases the prevailing response was an exaggerated physiological fear reaction with prominent autonomic instability. Unfortunately the average duration of illness before admission was 14·3 months by which time the autonomic aspect of the case had become moulded and fixed in a neurosis with considerable depression and anxiety, presenting a formidable therapeutic problem so far as return to sea was concerned. States of anxiety and depression tended to be mixed and difficult to differentiate so that the common clinical picture was that of an anxious depressive reaction, with weakness and irritability, occurring in men of varied previous personality, physique, education and training. In this they resembled, at least initially, the exhaustion states of operational Service units. These exaggerated but fundamentally physiological responses usually started while at sea, and at times necessitated temporary absence from duty but for the most part symptoms were largely smothered until return to port where a more florid state of neurosis ensued, due partly to faulty self-interpretation of symptoms, and partly because as Curran and Garmany (1944) have pointed out a heightened sense of tension and awareness which is appropriate at sea becomes incongruous and a nuisance ashore under a reduced tempo of living. At home the neurotic picture changes. Free anxiety is reduced while feelings of resentment and paranoid ideas of criticism by the family tend to intrude. This is understandable if one remembers the poor personality adjustment to civilian domestic life. Until recently treatment facilities were inadequate. Consequently the men felt neglected at home and their resentment increased.

It has been obvious that the greater the actual traumatic stress the more nearly do the clinical findings present a uniform standard picture. Constant and continued stress is less well tolerated than short attacks of great severity, e.g. Pearl Harbour produced relatively few neurotic casualties compared with Guadalcanal or Dunkirk.

Motor hysterical manifestations were rare, conditions at sea make conversion hysteria a very unprofitable compromise. In the anxiety states it cannot be said that in the Merchant Navy the predominance of such states was due to wider recognition of such conditions as has been suggested elsewhere. Symptoms were usually fully developed, and early recognition was exceptional, before specialist treatment was sought so far as our particular experience goes. As regards alcohol, a fair amount of symptomatic drinking occurred though probably not in excess of Service patients. The chronic drunkard was rarely diagnosed and part of the alcoholism encountered was certainly due to the diminished tolerance associated with neurosis.

Physical examinations showed that over 50% of patients had lost from a half to three stones in weight, 12% had abnormally high blood-pressure chiefly due to anxiety, while active or latent syphilis, bronchitis, arteriosclerosis and vitamin deficiency, each occurred in under 3% of cases. The significance of persistent loss of weight in war neuroses has been discussed by Sargant and Craske (1941) as an indication of the effort made by the patient to overcome his neurosis and the need for the use of a modified insulin regime.

Treatment

Treatment is difficult in view of the previous adjustment at sea except in the very young and the elderly. The former are usually more willing to leave the sea and can be directed into training schemes in industry. The latter can be retired. The chief difficulty comes when the somatic symptoms of anxiety have been alleviated and the problem of adaptation, of restarting a man on a life he rejected when younger is

presented. Therefore in-patient treatment is incomplete unless it leads to guidance into a new adjustment, obviously not easy in the face of the personality outlined and its unsettled conduct. The following situation is fairly typical: fourteen months before admission the patient was torpedoed and underwent traumatic experiences. Reaching land he had adequate physical first aid, after which he spent from one to three months returning to this country. He made efforts to suppress his symptoms by "working them off" with employment on another ship. Arriving at a home port he was not medically examined and his complaint of illness was met by a direction home under the local general practitioner's care. Under war conditions it was difficult for the latter to prescribe other than mild sedation and rest. Now some patients undoubtedly recovered or improved spontaneously under a convalescent regime or home environment. We met some of those who did not, who instead of improving became more anxious, irritable and unsettled so that relatives noticed their erratic conduct and complained of their altered personality. Financial stringency and sometimes six to twelve months of inactivity generally resulted in the Ministry of Pensions being consulted and ultimately their admission to the special unit for the Merchant Navy at this hospital, where many arrived in a somewhat frustrated, sceptical and unco-operative frame of mind as a result of these experiences. Such were the men whom we aimed firstly to return to sea or otherwise rehabilitate for work of national importance ashore.

In view of this attitude it was very necessary to apply prompt and full clinical examination and early symptomatic relief to secure the patient's co-operation. In the large majority of patients of the anxiety-depression group, where tension tended to be severe, such relief could be obtained by the use of sedation in varying depths and by courses of modified insulin. Adequate quantities of sedative by reducing psychological tension brought considerable symptomatic relief even in some relatively long-standing cases of illness. What is really adequate for such states is generally underestimated. The most useful drugs for this purpose were sodium amytal or phenobarbitone, up to 3 grains four-hourly of the former and 2 grains t.d.s. of the latter being well tolerated by ambulant patients. In severe states of tension and anxiety, continuous sleep was given under sodium amytal 6 to 12 grains four-hourly, for one to three weeks. The method is safe provided experienced medical and nursing staff are available. A vitamin supplement, particularly B_2 complex, is useful since hyporiboflavinosis has occasionally been seen. High-potency yeast tablets, 3 t.d.s., are an effective prophylactic.

Since half these patients had lost from half to three stones weight, and improvement by psychological means is generally delayed until the normal weight is restored, we endeavoured to stimulate metabolism and appetite, and to generate a sense of well-being rapidly, by using modified insulin, Sargant (1941) and Sands (1944*a*). Furthermore we found progress quicker and safer if, where much tension and loss of weight co-existed, sleep and insulin were combined (Sands, 1944*b*).

Where hysterical symptoms and loss of weight were severe, anxiety being absent or slight, modified insulin became the primary physical treatment and sedation played a minor role. By the use of these methods which are equally applicable to civilian neurosis (Sands, 1943) progress is much more rapid since the time required for psychotherapy is considerably cut down. Such symptomatic improvement and gain in rapport is liable to be temporary, or short of the best result attainable in any given patient unless adaptation is reinforced by psychological methods.

The physical and psychological treatments are applied in a complementary fashion, so that the physical prepares the constitution for the psychological approach, which in turn stabilizes and furthers progress already initiated.

Generally speaking neither the patient nor his illness could have benefited by analytical psychotherapy had it been economically possible. The types of psychotherapy most useful were found to be abreaction, explanation and such reorientation of ideas as was necessary. For abreaction the lighter periods of continuous sleep treatment were often useful, otherwise a temporary intravenous barbiturate narcosis was induced as first used by Bleckwenn (1930).

In explanation of their illness numerous patients required some instruction on the psychic and physical effects of fear and anxiety. Some had interpreted their somatic symptoms as physical disease of one sort or another, or had developed intractable phobias of such illness. Frequent terrifying nightmares had led some to fear imminent insanity, in others loss of sexual desire engendered dread of chronic personality change. Many more required explanation of their faulty conditioning to experiences afloat and

to associated stimuli on land. Many had been decorated for meritorious war service and they felt ashamed and depressed by their patent jumpiness at sharp noises, the sound of friendly aircraft or air-raid alerts. Not unnaturally this led to much self-consciousness and sense of uselessness.

After months of introspective anxious rumination, no little psychological reorientation towards the problem of their occupation was required. To return to sea was at times a terrifying prospect, and in the face of severe feelings of this nature it was useless to persuade or insist that they should go. They feared repetition of horrifying sights and experiences which no amount of discussion would alter. Others expressed their quandary and failure by proclaiming the iniquities of the officers, of the shipping authorities, or accusing the crew of hindering the war effort, saying the country was rotten, and in general developing a loosely built system of paranoid ideas. We found that such symptoms were often reduced by the initial physical treatment and did not prove to be the obstinate psychotherapeutic problem customarily found in peacetime. None the less, where an aggressive psychopathic constitution was linked with such paranoid thinking it was necessary in a few instances to discharge patients home for misconduct (2·2%) or to the observation ward (3·8%) for further hospital care.

Shock treatment such as insulin comas for schizophrenias and electrically induced fits for depression were employed as required. We would emphasize that good control of patients having E.C.T. is necessary since we noted that while out on pass from the hospital small indulgence in alcohol frequently resulted in aggressive confused states which materially retarded the patient's progress and disturbed the *moral* of the ward generally. Such schizophrenias as occurred usually had little direct precipitation by war stress. Depression was much more common but mainly of superficial reactive type or secondary to anxiety. Consequently E.C.T. was less often indicated than is usual when this condition is endogenous or is the dominating persistent pathological response.

Like some other specialized professions Merchant Navy men are very prone "to talk shop" and to tell of their various fearful war experiences, which while it may act as an abreaction for the narrator, is pregnant with painful associations for others, and, if unchecked, may prejudice progress. For this reason and to provide confidence and social adjustment, patients were encouraged to use auxiliary methods of treatment in occupational therapy units, daily physical training and recreational programmes.

If permanent or temporary discharge from the Merchant Navy was indicated we used our liaison with the Ministry of Labour to recommend suitable employment for men on leaving hospital. Patients interviewed the Ministry's special representative while still in hospital, and for therapeutic reasons the decision regarding disposal was made as early as the circumstances of the individual patient allowed.

Results

In a total of 323 patients 13·3% recovered, 39·6% were much improved, 34·1% improved and in 13% there was no change. Their disposal resulted in 15% being recommended to return to sea, temporary release from seagoing duty in 12·8% for periods varying from three to twelve months, while 61·7% were permanently discharged unfit for sea. 6·7% were discharged for misconduct, against medical advice, as absconded, or at their own request. 3·8% were sent to Mental Homes or Observation Wards. Of the whole group 5·9% were unfit for work on sea or shore at the time of discharge.

U.S. Rest Centres report 57% recommended for sea (Bellamy, 1943), but the type of patient is not entirely comparable since long-standing psychoneuroses, psychopathic personalities, chronic alcoholism and psychosis were excluded from their series. A fair number of the first and second of these groups, and a few of the last were admitted to our hospital unit.

Comment

It might be thought that, because the responsibility of the work is often considerable, and there is little chance of psychiatric treatment at sea, that much caution was necessary in recommending return to duty, yet follow-up results indicate that this is not necessarily the right policy. We feel that there should not be so wide a difference between the number of anxiety states returned to sea in the Navy, 90% (Garmany, 1944), and in the Merchant Marine, 25%. In part these differences are the outcome of the purposes for which these Services exist. One effect of the Navy's scheme of training and discipline is the welding of an efficient social group, the ship's company; which will stand the stress of war even when diluted nine to ten times (*The Times*, 14.9.44). Such methods

lessen the incidence and facilitate the treatment of neurotic illness. These conditions have not occurred in the Merchant Marine because individuals tend to take up the life for their own psychological adaptation and because the commercial lines of the organization are not intended for war. None the less there are other factors which contribute to this disparity in results which could be readily improved. Such factors are:

Avoidable delay in treatment.

One of us made special inquiry into 150 patients to ascertain to what extent this factor had occurred. It averaged six months in this series when assessed from the time each man arrived at a home port and presented himself for medical examination. The delay in some cases has been as long as three years. This means that a man, say a deck officer, trained to carry out a very specialized duty which can have no counterpart in civilian employment may, if he breaks down and is unable to return to sea, present a very difficult problem in rehabilitation. In most cases he is too old for training and we have seen second officers become night watchmen after invaliding. Particularly in conversion hysteria does this delay have serious significance. In fact a man who has been on 100% pension for more than two years for a conversion hysterical syndrome has been in our experience practically untreatable. Treatment in these patients can only be directed to rehabilitation for employment at a very much lower grade of social efficiency. Resentment against authorities and an attitude of chronic invalidism invariably co-exist. Such patients do not differ in any way from other chronic hysterias in which the compensation factor is predominant, but a study of the previous history and circumstances of these cases does not show evidence of previous maladjustment or neurotic illness.

As our results show, in anxiety states, particularly in this type of man, delay in giving treatment is again a serious factor in altering prognosis, because the pattern of his life has broken by breakdown at sea. Men have been discharged from the Service within a few weeks of presenting themselves to the Merchant Pool Doctor, a circumstance which often proved the greatest trauma of all. Fifty-eight of our patients were permanently discharged and four temporarily, before treatment was given. They were then sent home to be under the care of their local doctors. In this way men with long experience at sea, little or no experience of civilian employment, but in a state of nervous illness find themselves faced with financial stringency, and the necessity for starting a new life in a setting from which they had previously fled. Not unnaturally they develop resentment towards the Merchant Navy Pool or Shipping Authorities whom they believe to have treated them in a cavalier manner. If permanently discharged the work which they can obtain, since they have not trained for civilian employment is necessarily relatively unremunerative, and very frequently by precipitating an increase in neurotic symptoms, loss of employment results. The larger number of patients were sent home to the care of their local doctor with neurotic or psychotic symptoms which were too active for recovery with a convalescent regime. Others were sent to the Merchant Navy Convalescent Home but for the same reason had subsequently to be transferred to hospital after a delay which should have been avoidable. It appears that in many instances no pension is given until these men have demonstrated their incapacity for work, and it is only when this is complete that they are admitted to a neurosis centre. Another factor determining the differences between Merchant and Royal Navy personnel is the *absence of any form of selection in the Merchant Navy.* There are, however, some personalities, mildly abnormal by ordinary standards, who do quite well at sea.

Unnecessary stress in conditions of service.

These include lack of adequate rest or leave ashore between periods of duty at sea, only possible because of the acquiescence of the type of personality concerned. Recently it has been possible for reasonable leave to be taken without financial loss. Most of our cases occurred before this change was made. In spite of the presence of active nervous illness 77 of our patients had been returned to sea without treatment, presumably to attempt to "work it off". Their subsequent presence in hospital is sufficient comment on this method of treatment by "passing the buck" to the captain. It merely resulted in further incapacity and resentment by the patient. Formerly patients were sent to hospital without allowances being made to their families so that unless savings were available it often happened that discharge had to be granted before the conclusion of treatment in order that the patient might earn money in the first available job. Fortunately this difficulty has been lessened though not yet overcome.

Attention has been given to possible methods by which these difficulties could be obviated. From experience not only with Merchant seamen but with neurosis in other Services that is our firm opinion, supported by the results of treatment in North Africa and other places, that the prognosis in anxiety states can be completely altered if they are treated as medical emergencies. If this is not done social and psychological factors enter in which initially were unrelated to the neurosis but which can completely change the outcome.

Conditions at sea in the Merchant Marine more or less preclude effective first aid or early treatment, though for years alcohol has been used for this purpose. Its use varies in different ships according to the ideas of the captain and in any event its action is somewhat uncertain. Its effect in moderate dosage is mainly that of a cortical depressant, a doubtful aid where one's safety may depend on rapid intellectual adaptation, and where the symptoms are chiefly of thalamic and autonomic type. In theory and in practice sodium amytal is far more effective. It spares the patient from excessive emotion and prevents fear impairing his performance. Its administration by a senior officer in restricted dosage of say 3 grains morning and evening in acute cases until medical attention is available is worth consideration. In this connexion the work of Heath and Powdermaker (1944) is of interest. Their experience of war neurosis

amongst Merchant seamen at a United States Rest Centre has also led them to believe that in recent cases of "battle reaction" one is dealing with physiological type of response in the form of an exaggerated expression of fear, and they endeavoured to make treatment specific by the use of ergot, the sympathetic depressant, in addition to psychotherapy. Very encouraging results were obtained in the twenty cases reported.

In addition to such early measures, it would be preferable in order to avoid delay in treatment ashore, that when a man is declared unfit in the absence of adequate physical cause, he should be referred forthwith to a psychiatrist. At present he is usually the last doctor a patient sees. It is appreciated that in some parts this is not an easy matter, but in Liverpool, Cardiff, Bristol, Glasgow, Newcastle and London where the majority of such patients are, this should present no difficulty. In these towns there are psychiatric out-patient departments at general hospitals and the services of local E.M.S. psychiatrists are available. We believe that prompt treatment within a day or two of return to port, such as occurs in other Services would bring about a substantial improvement in results, diminish invalidism and expense to the country in pensions and allowances. To reap the full benefit of early treatment it is necessary to support it with greater care in the selection of officers and men and to dispose of some of the aggravations noted in this paper. As in the Navy, good conditions of service and the fostering of a sound group spirit constitute not only the best prophylactic measures against neurosis but are most valuable in promoting early recovery from such illness.

RESULTS OF TREATMENT IN 187 CASES FOLLOWED UP FROM SIX TO EIGHTEEN MONTHS

	At discharge 323 cases		Followed up 6 to 18 months 187 cases	
Recovered	43	13·3%	15	8·0%
Much improved	128	39·6%	106	56·7%
Slightly improved	110	34·1%	20	10·7%
No change	42	13·0%	46	24·6%

PRESENT EMPLOYMENT IN 147 CASES FOLLOWED UP FROM SIX TO EIGHTEEN MONTHS

STATUS		DISTRIBUTION	
Rise	9	Shore	116
Equal	118	Sea	25
Lower	16	River	3
Unknown ...	4	Canal	1
		Army	2
UNEMPLOYED	40		
Including ...	3 in hospital		
	3 awaiting ship		
	1 Government Training Scheme.		

Follow-up Results

A total of 187 reports are available. Results of treatment show that the "slightly improved" group has tended to sort itself out into a definite state of improvement or relapse. The net result being that in the long run 64% of patients were substantially benefited. The earning ability of those in employment was maintained, as a rule, on shore. Nearly a quarter were still unemployed, more than half being clinically in the unchanged group.

The outcome on the 55 men recommended to return to sea is of some interest. Of these we know that 16 directed to sea stayed on shore, that 19 did in fact return to sea together with 6 others not recommended to do so. The minimum number at sea is therefore 25. However we know that 20 more were recommended to return to sea and of these 15 who had the follow-up questionnaire sent to them did not reply, so that the follow-up netted just over two-thirds of the possible replies. While the number of those certainly at sea is 25 or 13%, and if one takes these figures as guides, then it is highly probable that the actual number at sea is approximately 31 or 16·5%.

Incidentally 6 out of 187 (3%) returned to sea against advice and this is the minimum figure. We have never heard of a discharged soldier doing this, but such returns against advice are a likely result in the type of personality described.

SUMMARY

These 334 officers and men of the Merchant Marine have demonstrated the psychiatric aspect of their service. Besides this they are in effect, a control series which typify the unfortunate results of delay in treating traumatic illness whether this has occurred for reasons which are or are not beyond control. Such delay while often fatal to further service at sea is not necessarily prejudicial to success on shore if suitable rehabilitation is employed.

Though active warfare may cease to be a relevant factor, those Merchant seamen driven ashore by its stress, will in some instances and despite all effort to the contrary fail to readjust on land. To avoid much anti-social conduct it may be necessary to get these men back to sea at the close of hostilities.

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Discussion

Dr. E. L. Caldwell-Smith: The problem of psychoneurosis in the Merchant Navy is receiving much consideration from those concerned and there have recently been conferences between the Federation, the Ministry of Health and Ministry of War Transport, on this subject, particularly as to how suitable cases can be brought under proper treatment with a minimum amount of delay. There are, however, many difficulties. The men are civilians, independent by nature, and as a rule dislike Institutional treatment. They are discharged from ships usually not complaining of their symptoms and proceed to their homes, often long distances away from the nearest Reserve Pool, and then come under the care of their panel doctors.

Discharges from the Merchant Navy for nervous diseases are higher than in any other group. During a period (which must be unspecified) out of 9,858 discharges on health grounds 2,163 were for nervous diseases, 21·8%. Of these, as far as can be estimated from available returns 2·4% were for organic diseases of the nervous system including epilepsy, and 19·4% for psychoneuroses and mental diseases, i.e. approximately 1 in 5 of all discharges. As regards incidence, out of 6,437 recent cases of unfitness for seafaring 70 (1·09%) were organic disease and epilepsy, and 523 (8·13%) were psychoneurotic and mental. Difficulty in getting these cases properly treated at an early stage was admitted. One of the main troubles was that on discharge at the end of a voyage or on return to this country after a discharge abroad, the men are paid off at Mercantile Marine Office and proceed to their homes on leave. It was then and during this period that so many cases developed their nervous symptoms and came under the care of their own doctor. Federation and Pool doctors could not interfere and letters and messages to the man's doctor were not productive of their doctor taking active steps as a rule. Federation and Pool doctors would do all they could to assist in getting these men properly treated but with the very large number of cases it was impossible to refer all to psychiatrists and so many treated and reported fit when subsequently sent back to sea relapsed on first voyage and had to be discharged.

At the last conference with the Ministries concerned on this subject certain decisions were reached and it was agreed that when the man was first seen by a Pool doctor and considered curable and likely to be fit for seafaring again the Pool doctor would send the man to the nearest psychiatrist on a list to be provided by Ministry of Health who would put the necessary machinery in motion to get the man admitted to a suitable Institution.

Dr. M. N. Pai: A discussion on Merchant Navy Psychiatry would be incomplete if no mention were made of the incidence of psychiatric disorders among Asiatic seamen especially Indians who, since the outbreak of war, have played their part magnificently and in every respect worthy of the highest traditions of the British merchant marine. In spite of educational and cultural disadvantages, linguistic difficulties and problems such as insecurity of tenure and consequent financial instability, religious customs and personal habits they have stood up to intense enemy action at sea remarkably well indeed. Even in heavily "blitzed" cities like Liverpool and Cardiff the psychiatric casualties among Indian seamen have been negligible. This is a tribute to the average Indian seaman's constitution which can apparently withstand any amount of stress without abnormal psychological reactions—a fact which is not generally known. One would like to hear the views of doctors who look after Indian seamen and perhaps Dr. Sands could tell us what percentage of his patients were Asiatic seamen and whether he has any comment to make on psychiatric disorders among them.

Dr. Karl Evang (*Director-General of the Norwegian Public Health Services*): During the war, sailors of the merchant fleets have been working under an extremely severe pressure. Mentally they are not protected by the fact that they belong to an organized body like a military organization, and they have not the advantage of co-operating and fighting together with the same persons for a long time. They also have no way of fighting back, and therefore have very little natural outlet for their aggression towards the enemy. I am not a psychiatrist myself, but have had an opportunity to get in contact with these problems through the Norwegian Public Health Service which has been set up for the benefit of Norwegian men in this country, the United States of America, Canada and India.

We have been struck by the very few cases of what might be called traumatic war neuroses among Norwegian sailors during the war. The medical superintendent at one of our convalescent homes, reported that during one year about 24,000 Norwegian crew members visited a certain harbour. During the same year 296 Norwegian sailors were

signed off at the same harbour after having been torpedoed. In that year 60 psychiatric cases were admitted to the convalescent home which was the only one admitting Norwegian patients of this type. Half of these cases were not pertinent to our problems to-day. In the remaining group an obvious connexion with the war situation was found in only about half of the group, 15 men. One of the reasons why cases of this type have occurred relatively seldom in the Norwegian Merchant Navy during the war may be that the Norwegian merchant men also in peacetime are accustomed to being away from their families and their country for long periods, often several years at a time. They would also, of course, as a group, constitute experienced sailors who have been working in the same profession for a long time.

As a prophylactic, the Norwegian Government has tried, in all large harbours where there are manning pools for the Allied fleets, and also in several smaller harbours, to establish necessary medical and social services for the men.

Dr. Sands: Replying to Dr. Pai, the number of Asiatics in our series was only two. There were three Africans and nine Europeans of various nationalities. In view of the theme developed in this paper, it is very doubtful if the domestic background and the factors operable in civil life, which we have described, apply to Asiatics. Such information as I have suggests that when Asiatics break down they do so shortly after the traumatic event, whereas in the group discussed the breakdown tended to occur at the home port and to be cumulative with time.